[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0875; Project Identifier MCAI-2022-00640-R]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters Deutschland GmbH (AHD) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Airbus Helicopters Deutschland GmbH (AHD) Model MBB-BK 117 C-2 helicopters. This proposed AD was prompted by reports of excessively worn bolts that connect the cardan-pivot joint with the piston rod of the tail rotor actuator (TRA) assembly. This proposed AD would require repetitively inspecting certain TRA assemblies, and depending on the results, replacing or repairing parts, or accomplishing additional inspections. This proposed AD would also prohibit installing an affected TRA assembly unless it passes required inspections. Lastly, this proposed AD would provide terminating actions for certain inspections, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: (202) 493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For EASA material that is proposed for IBR in this NPRM, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find the EASA material on the EASA website at https://ad.easa.europa.eu. For Airbus Helicopters service information identified in this NPRM, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at https://www.airbus.com/helicopters/services/technical-support.html. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. The EASA material is also available at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0875.

Examining the AD Docket

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0875; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the EASA AD, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; telephone (202) 267-9167; email hal.jensen@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2022-0875; Project Identifier MCAI-2022-00640-R" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; telephone (202) 267-9167; email hal.jensen@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued a series of EASA ADs, with the most recent being EASA AD 2022-0086, dated May 13, 2022 (EASA AD 2022-0086), to correct an unsafe condition for Airbus Helicopters Deutschland GmbH (AHD), formerly Eurocopter Deutschland GmbH; and Airbus Helicopters Inc., formerly American Eurocopter LLC, Model MBB-BK117 C-2 helicopters. EASA issued EASA AD 2022-0086 to supersede EASA AD 2019-0313, dated December 20, 2019.

This proposed AD was prompted by reports of excessively worn bolts that connect the cardan-pivot joint with the piston rod of the TRA assembly. According to Airbus Helicopters, manufacturer investigations of affected TRAs have revealed improperly assembled cardan-pivot joints as the main cause of the excessively worn bolts. Additionally, incorrect washers as well as improperly shimmed laminated washers contribute to axial play and increased wear of the bolt. The FAA is proposing this AD to detect and prevent worn bolts. The unsafe condition, if not addressed, could result in helicopter oscillations on the yaw axis during flight, failure of a bolt resulting in loss of control of the tail rotor, and subsequent loss of control of the helicopter. See EASA AD 2022-0086 for additional background information.

Related Service Information Under 1 CFR Part 51

EASA AD 2022-0086 requires, for certain TRAs with a steel or aluminum cardan-pivot joint, repetitively measuring the minimum diameter of the cardan-pivot joint assembly bolt. Depending on the results, EASA AD 2022-0086 requires replacing the bolt and laminated washers of the affected TRA or repetitively measuring the minimum diameter of the cardan-pivot joint assembly bolt at a reduced compliance time; or contacting AHD for approved repair instructions and compliance time or measuring the maximum diameter of the TRA piston rod bore hole. Depending on the results of measuring the maximum diameter of the TRA piston rod bore hole, EASA AD 2022-0086 requires replacing the bolt and laminated washers of the affected TRA; or contacting AHD for approved repair instructions and compliance time or repetitively measuring the maximum diameter of the TRA piston rod bore hole at a reduced

compliance time. EASA AD 2022-0086 also prohibits installing an affected TRA assembly unless it passes its required inspections. Lastly, EASA AD 2022-0086 specifies certain terminating actions for repetitively measuring the minimum diameter of the cardan-pivot joint assembly bolt.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA reviewed Airbus Helicopters Alert Service Bulletin MBB-BK117 C-2-67A-027, Revision 2, dated December 15, 2021. This service information specifies, for TRAs with a steel or aluminum cardan-pivot joint, procedures for measuring the minimum diameter of the cardan-pivot joint assembly bolt, measuring the maximum

diameter of the TRA piston rod bore hole, replacing the bolt and laminated washers, and reassembling the TRA.

FAA's Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in EASA AD 2022-0086, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this proposed AD and except as discussed under "Differences Between this Proposed AD and the EASA AD."

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2022-0086 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2022-0086 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in EASA AD 2022-0086 does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions and compliance times," compliance with this AD requirement is not limited to the section titled "Required Action(s) and Compliance Time(s)" in EASA AD 2022-0086. Service information referenced in EASA AD 2022-0086 for compliance will be available at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0875 after the FAA final rule is published.

Differences Between this Proposed AD and the EASA AD

EASA AD 2022-0086 requires discarding certain parts, whereas this proposed AD would require removing those parts from service instead. EASA AD 2022-0086 requires maintaining a removed bolt for possible investigation purposes for four weeks, whereas this proposed AD would not require that action. EASA AD 2022-0086 requires contacting AHD for approved repair instructions and accomplishing those instructions within the compliance time specified therein, whereas this proposed AD would require accomplishing a repair in accordance with certain approved methods before further flight.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 142 helicopters of U.S. Registry. Labor rates are estimated at $85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Measuring the cardan-pivot joint assembly bolt would take about 2 work-hours and have a nominal parts cost for an estimated cost of $170 per helicopter and $24,140 for the U.S. fleet, per inspection cycle. If required, measuring the TRA piston rod bore hole following the cardan-pivot joint assembly bolt inspection would take about an additional 0.5 work-hour for an estimated cost of $43 per helicopter, per inspection cycle. Replacing a bolt and the laminated washers following an inspection would take about an additional 0.25 work-hour and parts would cost about $586 for an estimated cost of $607 per replacement.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Airbus Helicopters Deutschland GmbH (AHD): Docket No. FAA-2022-0875; Project Identifier MCAI-2022-00640-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Airbus Helicopters Deutschland GmbH (AHD) Model MBB-BK 117 C-2 helicopters, certificated in any category.

Note 1 to paragraph (c): Helicopters with an MBB-BK 117 C-2(e) designation are Model MBB-BK 117 C-2 helicopters.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6720, Tail Rotor Control System.

(e) Unsafe Condition

This AD was prompted by reports of excessively worn bolts that connect the cardan-pivot joint with the piston rod of the tail rotor actuator assembly. The FAA is issuing this AD to detect and prevent worn bolts. The unsafe condition, if not addressed, could result in helicopter oscillations on the yaw axis during flight, failure of a bolt resulting in loss of control of the tail rotor, and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2022-0086, dated May 13, 2022 (EASA AD 2022-0086).

(h) Exceptions to EASA AD 2022-0086

(1) Where EASA AD 2022-0086 requires compliance in terms of flight hours, this AD requires using hours time-in-service (TIS).

(2) Where EASA AD 2022-0086 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where Note 1 of EASA AD 2022-0086 allows a non-cumulative tolerance of 10% to the repetitive inspection intervals specified in its paragraphs (1), (2.2), and (5.2), this AD requires the repetitive inspection intervals specified in paragraphs (h)(3)(i) through (iii) of this AD.

(i) For the repetitive inspection interval specified in paragraph (1) of EASA AD 2022-0086, within intervals not to exceed 330 hours TIS.

(ii) For the repetitive inspection interval specified in paragraph (2.2) of EASA AD 2022-0086, within intervals not to exceed 165 hours TIS.

(iii) For the repetitive inspection interval specified in paragraph (5.2) of EASA AD 2022-0086, within intervals not to exceed 55 hours TIS.

(4) Where the service information referenced in EASA AD 2022-0086 specifies discarding parts, this AD requires removing those parts from service.

(5) Where the service information referenced in EASA AD 2022-0086 specifies maintaining a removed bolt for possible investigation purposes for four weeks, this AD does not require that action.

(6) Where paragraphs (3.1) and (5.1) of EASA AD 2022-0086 specify contacting AHD for approved repair instructions and accomplishing those instructions within the compliance time specified therein, this AD requires, before further flight, repair done in accordance with a method approved by the Manager, General Aviation & Rotorcraft Section, International Validation Branch, FAA; EASA; or Airbus Helicopters Deutschland GmbH EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(7) This AD does not mandate compliance with the “Remarks” section of EASA AD 2022-0086.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2022-0086 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Special Flight Permit

A special flight permit may be issued in accordance with 14 CFR 21.197 and 21.199, provided that there are no passengers onboard.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (l)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(l) Related Information

(1) For EASA AD 2022-0086, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find the EASA material on the EASA website at https://ad.easa.europa.eu. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0875.

(2) For more information about this AD, contact Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; telephone (202) 267-9167; email hal.jensen@faa.gov.

Issued on July 8, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.
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